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EXAMINER	
LIN, JASON K	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/761,190	KIM, KUN-TAE	
	Examiner	Art Unit	
	JASON K. LIN	2425	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 March 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-11,13-15,17 and 19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-11,13-15,17 and 19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is responsive to application No. 10/761,190 filed on 03/02/2009. **Claims 1-3, 5-11, 13-15, 17, and 19** are pending and have been examined.

Response to Arguments

2. Applicant's arguments with respect to **Claims 1-3, 5-11, 13-15, 17, and 19** have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 1, 2, 10, 17, and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Joung et al. (US 2003/0131360) hereinafter referred to as Joung'360, in view of Joung et al. (US 5,555,097) hereinafter referred to as Joung'097, and further in view of Saitoh et al. (US 6,839,851).

Consider **claim 1,** Joung'360 teaches a set top box capable of performing wireless transmission (100-Fig.2; Paragraph 0022, 0025, 0075), the set top box comprising:

a digital television receiver, which converts a tuned digital broadcasting signal into a first transport stream (TS) (digital broadcast receiving unit 121-Fig.2; Paragraph 0044);

a TS converting unit (120-Fig.2);

a wireless processing module, which processes one of the first TS and the second TS as a processed output and wirelessly transmits the processed output (130, 140, 150 - Fig.2; Paragraph 000049-0051 teaches providing multiplexer 125-Fig2, with first and second TS. Paragraph 0052-0057 teaches multiplexer 125-Fig.2 switches the transmission packet streams inputted respectively in accordance with the control of CPU 110-Fig.2 selects one of the transmission packet streams for output to be wirelessly transmitted).

Joung'360 does not explicitly teach receives at least one of a progressive scanning image signal input from outside and an external interlaced scanning signal from outside, converts the progressive scanning image signal into an interlaced scanning image signal if the progressive scanning signal is received, and then converts one of the interlaced scanning signal and the external interlaced scanning image signal into a second TS; and

wherein the TS converting unit comprises:

a converter, which converts the progressive scanning image signal input from outside into the interlaced scanning image signal and outputs the interlaced scanning image signal as an output of the converter by separating fields from the progressive scanning image signal and transmitting the separated fields; and

an encoding unit, which converts the external interlaced scanning image signal input from outside or the output of the convert into the second TS, and

further comprises one switching unit operable to received the external interlaced scanning image signal and the interlaced scanning image signal output

from the converter and selects one of the external interlaced scanning image signal and the interlaced scanning image signal output from the converter to output to the encoding unit.

In an analogous art Joung'097 receives at least one of a progressive scanning image signal input from outside and an external interlaced scanning signal from outside, converts the progressive scanning image signal into an interlaced scanning image signal if the progressive scanning signal is received, and then converts one of the interlaced scanning signal and the external interlaced scanning image signal into a second output signal (Fig.2; Col 10: line 51 - Col 11: line 7 teaches that both progressive and interlace scanning image signals can be received. If a progressive scanning type image signal is received, it is converted to an interlaced scan signal and then processed. However, if an interlaced scan signal is received it is passed through and then processed); and

a converter, which converts the progressive scanning image signal input from outside into the interlaced scanning image signal and outputs the interlaced scanning image signal as an output of the converter by separating fields from the progressive scanning image signal and transmitting the separated fields (Fig.2; Col 10: line 51 - Col 11: line 7 teaches that both progressive and interlace scanning image signals can be received. If a progressive scanning type image signal is received, it is converted to an interlaced scan signal and then processed); and

a unit, which converts the external interlaced scanning image signal input from outside or the output of the converter into the second output signal (Fig.2; Col 10: line 51 - Col 11: line 20); and

further comprises one switching unit operable to received the external interlaced scanning image signal and the interlaced scanning image signal output from the converter and selects one of the external interlaced scanning image signal and the interlaced scanning image signal output from the converter to output to the unit (Fig.2; Col 10: line 51 - Col 11: line 7 teaches that both progressive and interlace scanning image signals can be received. If a progressive scanning type image signal is received, it is converted to an interlaced scan signal and then processed. If a progressive scanning type image signal is received, it is converted to an interlaced scan signal and then processed. However, if an interlaced scan signal is received it is passed through and then processed. The output from both the signal of the passed through interlaced and the signal of the progressive converted to interlaced is passed to SW9-Fig.2 {switching unit} before going to format region converter 26-Fig.2).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify Joung'360s system to include receives at least one of a progressive scanning image signal input from outside and an external interlaced scanning signal from outside, converts the progressive scanning image signal into an interlaced scanning image signal if the progressive scanning signal is received, and then converts one of the interlaced scanning signal and the external

interlaced scanning image signal into a second output signal; and a converter, which converts the progressive scanning image signal input from outside into the interlaced scanning image signal and outputs the interlaced scanning image signal as an output of the converter by separating fields from the progressive scanning image signal and transmitting the separated fields; and a unit, which converts the external interlaced scanning image signal input from outside or the output of the converter into the second output signal; and further comprises one switching unit operable to received the external interlaced scanning image signal and the interlaced scanning image signal output from the converter and selects one of the external interlaced scanning image signal and the interlaced scanning image signal output from the converter to output to the unit, as taught by Joung'097, for the advantage of allowing a variety of sources to be received, easily handling various formats and making it compatible with the user's system, increasing usability and playability of more media sources.

Joung'360 and Joung'097 do not explicitly teach an encoding unit, converting the signal to a second TS and where the second signal is the second TS.

In an analogous art Saitoh teaches an encoding unit, converting the signal to a second TS, where the second signal is the second TS (Col 4: lines 17-20, 23-26).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Joung'360 and Joung'097 to include an encoding unit,

converting the signal to a second TS and where the second signal is the second TS, as taught by Saitoh, for the advantage of combining data into a container format , allowing for synchronization of output, simple management and transportation of the media signal.

Consider **claim 10,** Joung'360 teaches a method for performing wireless transmission of television signals (100-Fig.2; Paragraph 0022, 0025, 0075) comprising:

receiving a digital broadcasting signal and converting the digital broadcasting signal into a first transport stream (TS) (digital broadcast receiving unit 121-Fig.2; Paragraph 0044);

a TS converting unit (120-Fig.2);

transmitting one of the first TS and the second TS over a wireless medium (130, 140, 150 - Fig.2; Paragraph 000049-0051 teaches providing multiplexer 125-Fig2, with first and second TS. Paragraph 0052-0057 teaches multiplexer 125-Fig.2 switches the transmission packet streams inputted respectively in accordance with the control of CPU 110-Fig.2 selects one of the transmission packet streams for output to be wirelessly transmitted).

Joung'360 does not explicitly teach receiving at least one of an progressive scanning image signal and an external interlaced scanning image signal, converting the progressive scanning image signal into an interlaced scanning image signal by separating fields from the progressive scanning image

signal and transmitting the separated fields if the external progressive scanning image signal is received, one switching between one of internal interlaced scanning image signal and the external interlaced scanning image signal; and converting one of the internal interlaced scanning image signal and the external interlaced scanning image signal into a second TS; and

wherein the converting one of the internal interlaced scanning image signal and the external interlaced scanning image signal into a second TS comprises:

encoding one of the external interlaced scanning image signal and the internal interlaced scanning image signal into the second TS ; and

converting one of the internal interlaced scanning image signal and the external interlaced scanning image signal received from the one switching, into the second TS

In an analogous art Joung'097 teaches receiving at least one of an progressive scanning image signal and an external interlaced scanning image signal, converting the progressive scanning image signal into an interlaced scanning image signal by separating fields from the progressive scanning image signal and transmitting the separated fields if the external progressive scanning image signal is received, one switching between one of internal interlaced scanning image signal and the external interlaced scanning image signal (Fig.2; Col 10: line 51 - Col 11: line 7 teaches that both progressive and interlace scanning image signals can be received. If a progressive scanning type image

signal is received, it is converted to an interlaced scan signal and then processed. However, if an interlaced scan signal is received it is passed through and then processed. The output from both the signal of the passed through interlaced and the signal of the progressive converted to interlaced is passed to SW9-Fig.2 {switching unit} before going to format region converter 26-Fig.2); and

wherein the converting one of the internal interlaced scanning image signal and the external interlaced scanning image signal into a second output signal comprises: encoding one of the external interlaced scanning image signal and the internal interlaced scanning image signal into the second output signal; and converting one of the internal interlaced scanning image signal and the external interlaced scanning image signal received from the one switching, into the second output signal (Fig.2; Col 10: line 51 - Col 11: line 20; The output from both the signal of the passed through interlaced and the signal of the progressive converted to interlaced is passed to SW9-Fig.2 {switching unit} before going to format region converter 26-Fig.2).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify Joung'360s system to include receiving at least one of an progressive scanning image signal and an external interlaced scanning image signal, converting the progressive scanning image signal into an interlaced scanning image signal by separating fields from the progressive scanning image signal and transmitting the separated fields if the external progressive scanning image signal is received, one switching between one of internal interlaced

scanning image signal and the external interlaced scanning image signal; and wherein the converting one of the internal interlaced scanning image signal and the external interlaced scanning image signal into a second output signal comprises: encoding one of the external interlaced scanning image signal and the internal interlaced scanning image signal into the second output signal; and converting one of the internal interlaced scanning image signal and the external interlaced scanning image signal received from the one switching, into the second output signal, as taught by Joung'097, for the advantage of allowing a variety of sources to be received, easily handling various formats and making it compatible with the user's system, increasing usability and playability of more media sources.

Joung'360 and Joung'097 do not explicitly teach an encoding unit, converting the signal to a second TS, where the second signal is the second TS.

In an analogous art Saitoh teaches encoding and converting the signal to a second TS and where the second signal is the second TS (Col 4: lines 17-20, 23-26).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Joung'360 and Joung'097 to include an encoding unit, converting the signal to a second TS and where the second signal is the second TS, as taught by Saitoh, for the advantage of combining data into a container format , allowing for synchronization of output, simple management and transportation of the media signal.

Consider **claim 2,** Joung'360, Joung'097, and Saitoh teach another switching unit which receives the first TS and the second TS and outputs one of the first TS and the second TS as an output of the other switching unit (Joung'360 - Paragraph 000049-0051 teaches providing multiplexer 125-Fig2, with first and second TS. Paragraph 0052-0057 teaches multiplexer 125-Fig.2 switches the transmission packet streams inputted respectively in accordance with the control of CPU 110-Fig.2 selects one of the transmission packet streams for output to be wirelessly transmitted; Joung'097 - Fig.2; Col 10: line 51 - Col 11: line 20; Saitoh - Col 4: lines 17-20, 23-26).

Consider **claim 17,** Joung'360, Joung'097, and Saitoh teach another switching unit which receives the first TS and the second TS and outputs one of the first TS and the second TS as an output to the wireless processing module (Joung'360 – Fig.2; Paragraph 000049-0051 teaches providing multiplexer 125-Fig2, with first and second TS. Paragraph 0052-0057 teaches multiplexer 125-Fig.2 switches the transmission packet streams inputted respectively in accordance with the control of CPU 110-Fig.2 selects one of the transmission packet streams for output to be wirelessly transmitted; Joung'097 - Fig.2; Col 10: line 51 - Col 11: line 20; Saitoh - Col 4: lines 17-20, 23-26).

Consider **claim 19,** Joung'360, Joung'097, and Saitoh teach another switching between the first TS and the second TS for the transmitting over the wireless medium (Joung'360 – Fig.2; Paragraph 000049-0051 teaches providing multiplexer 125-Fig2, with first and second TS. Paragraph 0052-0057 teaches multiplexer 125-Fig.2 switches the transmission packet streams inputted respectively in accordance with the control of CPU 110-Fig.2 selects one of the transmission packet streams for output to be wirelessly transmitted; Joung'097 - Fig.2; Col 10: line 51 - Col 11: line 20; Saitoh - Col 4: lines 17-20, 23-26).

5. **Claims 3, 8, and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Joung et al. (US 2003/0131360) hereinafter referred to as Joung'360, in view of Joung et al. (US 5,555,097) hereinafter referred to as Joung'097, in view of Saitoh et al. (US 6,839,851), and further in view of Levandowski (US 6,704,060).

Consider **claim 3,** Joung'360, Joung'097, and Saitoh teach output of the other switching unit (Joung'360 - Paragraph 000049-0051 teaches providing multiplexer 125-Fig2, with first and second TS. Paragraph 0052-0057 teaches multiplexer 125-Fig.2 switches the transmission packet streams inputted respectively in accordance with the control of CPU 110-Fig.2 selects one of the transmission packet streams for output), but do not explicitly teach a decoding unit which decodes the output and outputs a decoded TS stream to an image device connected to the set top box by a wire.

In an analogous art Levandowski teaches a decoding unit which decodes the output and outputs a decoded TS stream to an image device connected to the set top box by a wire (Col 3: lines 33-47).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Joung'360, Joung'097, and Saitoh to include a decoding unit which decodes the output and outputs a decoded TS stream to an image device connected to the set top box by a wire, as taught by Levandowski, for the advantage of supplying a display device readily displayable content, alleviating the need for complex decoding circuitry at the display device, allowing for cheaper manufacturing of corresponding display devices.

Consider **claim 8,** Joung'360, Joung'097, Saitoh, and Levandowski teach wherein the digital television receiver is an advanced television system committee (ATSC) receiver (Joung'360- Paragraph 0044).

Consider **claim 11,** Joung'360, Joung'097, and Saitoh teach the first TS and the second TS (Joung'360- Paragraph 000049-0051 teaches providing multiplexer 125-Fig2, with first and second TS; Joung'097 - Fig.2; Col 10: line 51 - Col 11: line 20; Saitoh - Col 4: lines 17-20, 23-26), but do not explicitly teach decoding the TS and transmitting a decoded signal to an image device through a wire.

In an analogous art Levandowski teaches decoding the TS and transmitting a decoded signal to an image device through a wire (Col 3: lines 33-47).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Joung'360, Joung'097, and Saitoh to include decoding the TS and transmitting a decoded signal to an image device through a wire, as taught by Levandowski, for the advantage of supplying a display device readily displayable content, alleviating the need for complex decoding circuitry at the display device, allowing for cheaper manufacturing of corresponding display devices.

6. **Claims 5, 9, and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Joung et al. (US 2003/0131360) hereinafter referred to as Joung'360, in view of Joung et al. (US 5,555,097) hereinafter referred to as Joung'097, in view of Saitoh et al. (US 6,839,851), and further in view of Akiyama (US 5,576,760).

Consider **claim 5,** Joung'360, Joung'097, and Saitoh teach wherein the converter comprises: a down converter, which converts the progressive scanning image signal into the interlaced scanning image signal by separating the fields from the progressive scanning image signal and transmitting the separated fields (Joung'097 - Fig.2; Col 10: line 51 - Col 11: line 20), but do not explictly teach an analog-to-digital converter (ADC), which converts the progressive scanning image signal input from outside into a digital signal; and

converts the progressive scanning image signal converted into the digital signal into the interlaced scanning image signal by separating the fields from the progressive scanning image signal and transmitting the separated fields.

In an analogous art Akiyama teaches an analog-to-digital converter (ADC), which converts the progressive scanning image signal input from outside into a digital signal; and converts the progressive scanning image signal converted into the digital signal into the interlaced scanning image signal by separating the fields from the progressive scanning image signal and transmitting the separated fields (Col 5: lines 1-20).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Joung'360, Joung'097, and Saitoh to include an analog-to-digital converter (ADC), which converts the progressive scanning image signal input from outside into a digital signal; and converts the progressive scanning image signal converted into the digital signal into the interlaced scanning image signal by separating the fields from the progressive scanning image signal and transmitting the separated fields, as taught by Akiyama, for the advantage of allowing a variety of sources to be received including raw progressive scanning media, handling various formats and making it compatible for use with the user's system, increasing usability and playability of more media sources.

Consider **claim 9,** Joung'360, Joung'097, Saitoh, and Akiyama teach wherein the digital television receiver is an advanced television system committee (ATSC) receiver (Joung'360 - Paragraph 0044).

Consider **claim 13,** Joung'360, Joung'097, and Saitoh teach wherein converting the external progressive scanning image signal into an internal interlaced scanning image signal comprises: down converting the signal into the internal interlaced scanning image signal by separating the fields from the progressive scanning image signal and transmitting the separated fields (Joung'097 - Fig.2; Col 10: line 51 - Col 11: line 2), but do not explictly teach converting the external progressive scanning image signal into a digital signal; and

down converting the digital signal into the interlaced scanning image signal by separating the fields from the progressive scanning image signal and transmitting the separated fields.

In an analogous art Akiyama teaches converting the external progressive scanning image signal into a digital signal; and down converting the digital signal into the interlaced scanning image signal by separating the fields from the progressive scanning image signal and transmitting the separated fields (Col 5: lines 1-20).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Joung'360, Joung'097, and Saitoh to include

converting the external progressive scanning image signal into a digital signal; and down converting the digital signal into the interlaced scanning image signal by separating the fields from the progressive scanning image signal and transmitting the separated fields, as taught by Akiyama, for the advantage of allowing a variety of sources to be received including raw progressive scanning media, handling various formats and making it compatible for use with the user's system, increasing usability and playability of more media sources.

7. **Claims 7 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Joung et al. (US 2003/0131360) hereinafter referred to as Joung'360, in view of Joung et al. (US 5,555,097) hereinafter referred to as Joung'097, in view of Saitoh et al. (US 6,839,851), in view of Akiyama (US 5,576,760), and further in view of Margulis (US 2001/0021998).

Consider **claim 7,** Joung'360, Joung'097, Saitoh, and Akiyama teach the wireless processing module wirelessly transmits the processed output (Joung'360 - Paragraph 0022, 0025, 0054), but do not explicitly teach transmitting the processed output in a radio frequency range.

In an analogous art, Margulis teaches transmitting the processed output in a radio frequency range (Paragraph 0051, 0055, 0069).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Joung'360, Joung'097, Saitoh, and Akiyama to include transmitting the processed output in a radio frequency range, as taught

by Margulis, for the advantage of providing efficient and interference free transmission of media since most of frequency range is beyond the vibration rate that most mechanical systems can respond to.

Consider **claim 15,** Joung'360, Joung'097, Saitoh, and Akiyama teach transmitting one of the first TS and the second TS over wireless medium (Joung'360 - Paragraph 0022, 0025, 0054; Paragraph 000049-0051 teaches providing multiplexer 125-Fig2, with first and second TS; Joung'097 - Fig.2; Col 10: line 51 - Col 11: line 2; Saitoh - Col 4: lines 17-20, 23-26), but do not explicitly teach transmission is done at a radio frequency.

In an analogous art Margulis teaches transmission is done at a radio frequency (Paragraph 0051, 0055, 0069).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Joung'360, Joung'097, and Saitoh to include transmission is done at a radio frequency, as taught by Margulis, for the advantage of providing efficient and interference free transmission of media since most of frequency range is beyond the vibration rate that most mechanical systems can respond to.

8. **Claims 6 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Joung'360, in view of Joung et al. (US 5,555,097) hereinafter referred to as

Joung'097, in view of Saitoh et al. (US 6,839,851), in view of Levandowski (US 6,704,060), and further in view of Margulis (US 2001/0021998).

Consider **claim 6,** Joung'360, Joung'097, Saitoh, and Levandowski teach the wireless processing module wirelessly transmits the processed output (Joung'360 - Paragraph 0022, 0025, 0054), but do not explicitly teach transmitting the processed output in a radio frequency range.

In an analogous art Margulis teaches transmitting the processed output in a radio frequency range (Paragraph 0051, 0055, 0069).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Joung'360, Joung'097, Saitoh, and Levandowski to include transmitting the processed output in a radio frequency range, as taught by Margulis, for the advantage of providing efficient and interference free transmission of media since most of frequency range is beyond the vibration rate that most mechanical systems can respond to.

Consider **claim 14,** Joung'360, Joung'097, Saitoh, and Levandowski teach transmitting one of the first TS and the second TS over wireless medium (Joung'360 - Paragraph 0022, 0025, 0054; Paragraph 000049-0051 teaches providing multiplexer 125-Fig2, with first and second TS; Dantwala - Fig.2; Col 3: lines 41-51, 58-67; Saitoh - Col 4: lines 17-20, 23-26), but do not explicitly teach transmission is done at a radio frequency.

In an analogous art Margulis teaches transmission is done at a radio frequency (Paragraph 0051, 0055, 0069).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Joung'360, Joung'097, Saitoh, and Levandowski to include transmission is done at a radio frequency, as taught by Margulis, for the advantage of providing efficient and interference free transmission of media since most of frequency range is beyond the vibration rate that most mechanical systems can respond to.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON K. LIN whose telephone number is (571)270-1446. The examiner can normally be reached on Mon-Fri, 9:00AM-6:00PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian T. Pendleton can be reached on (571)272-7527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Lin/
Examiner, Art Unit: 2425

/Brian T. Pendleton/
Supervisory Patent Examiner, Art Unit 2425